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SUBSTITUTE SPECIFICATION

EQUALIZER

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BACKGROUND OF THE INVENTION

Field of the Invention

The present invention refers to a method to equalize signals transmitted on a line as well as an equalizer filter realized in CMOS technology and besides an integrated circuit comprising an equalizer circuit.

Description of the Related Art

In high speed line communications, for instance in the case of data transmission of SDH equipment, the only filtration of the received signal is not sufficient to recover the data with a small error rate. An equalizer circuit is therefore necessary to compensate the line loss and improve the intersymbol interferences of the datum to recover. As known the line dispersion losses are linearly proportional to the length of the line and besides they are proportional to the square root of the frequency of transmission. The equalizer must therefore have a frequency response inversely proportional to that of the line. Particularly it is necessary an adaptive equalizer able to deal with variable lengths of line without altering significantly the intersymbol interferences.

BRIEF SUMMARY OF THE INVENTION

An embodiment of the present invention realizes an equalizer able to compensate the line attenuations in a simple and effective way.

Another embodiment of the invention is directed to a method that equalizes signals transmitted on a line comprising the following phases: applying an analog adaptive filter in series with said line, having a working frequency band and having at least one pole and at least one zero the position of which in said working frequency band is variable in response to the attenuation of said line; applying a retroaction circuit to the output of said filter able to vary the position of said at least one pole and at least one zero; setting said at least one pole and at least